



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Chiou et al.

Application Serial No.: 10/040,233

Filed: November 7, 2001

For: Novel Design and Fabrication Method for Finger N-Type Doped  
Photodiodes with High Sensitivity for CIS Products

Patent No.:

Issue Date:

Commissioner for Patents

P.O. Box 1450

Alexandria, Virginia 22313-1450

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**CERTIFICATE UNDER 37 C.F.R. §3.73(b)  
ESTABLISHING RIGHT OF ASSIGNEE TO TAKE ACTION**

1. The assignee of the entire right, title and interest hereby seeks to take action in the PTO in this matter.

**IDENTIFICATION OF ASSIGNEE**

2. The assignee of this matter is:

**TAIWAN SEMICONDUCTOR MANUFACTURING CO., LTD.**

8, Li-Hsin Rd. 6

Hsinchu Science Park

Hsinchu, Taiwan 300-77, R.O.C.

**PERSON AUTHORIZED TO SIGN**

3. Daniel R. McClure  
Attorney for Assignee

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4. A chain of title from the inventor(s) to the current assignee is shown below:

- a. From: Yu-Zung Chiou, Kuen-Hsien Lin, Chen Ying Lieh, Shou-Yi Hsu  
To: Taiwan Semiconductor Manufacturing Co., Ltd.  
Recorded in PTO: Reel:      Frame:
- b. From:  
To:  
Recorded in PTO: Reel:      Frame:

Recorded in PTO: See Attached evidencing assignment that has already been filed. No Reel and Frame has been assigned as of yet.

### DECLARATIONS

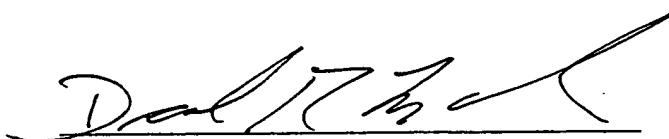
5. I, the undersigned, have reviewed all the documents in the chain of title of the

- ☒ application  
☐ patent

matter identified above and, to the best of my knowledge and belief, title is in the assignee identified above.

6. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

7. I, the person signing below, aver that I am empowered to sign this statement on behalf of the assignee.

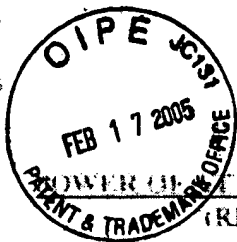


Daniel R. McClure, Reg. No. 38,962

Tel. No. 770-933-9500  
Customer No.: 24504

**THOMAS, KAYDEN, HORSTEMEYER  
& RISLEY, L.L.P.**  
100 Galleria Parkway, Suite 1750  
Atlanta, Georgia 30339-5948

Docket No. 252016-1050



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As assigner of record of each of the patent applications listed in the table of attachment A,

**REVOCATION OF PRIOR POWERS OF ATTORNEY**

all powers of attorney previously given in each of the listed patent applications are hereby revoked, and

**NEW POWER OF ATTORNEY**

The following attorneys/agents are hereby appointed to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith. I hereby appoint all attorneys of Thomas, Kayden, Horstemeyer & Risley, L.L.P., who are listed under the USPTO Customer Number shown below as the attorneys to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, recognizing that the specific attorneys listed under that Customer Number may be changed from time to time at the sole discretion of Thomas, Kayden, Horstemeyer & Risley, L.L.P., and request that all correspondence about the application be addressed to the address filed under the same USPTO Customer Number.

24504

Patent Trademark Office

Please direct all future correspondence and telephone calls to:

Daniel R. McClure, Reg. No. 38,962  
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, L.L.P.  
100 Galleria Parkway, Suite 1750  
Atlanta, Georgia 30339  
770-933-9500

**ASSIGNEE OF ENTIRE INTEREST**

TAIWAN SEMICONDUCTOR MANUFACTURING COMPANY, LTD.  
8, Li-Hsin Rd. 6  
Hsinchu Science Park  
Hsinchu, Taiwan 300-77, R.O.C.

**ASSIGNEE CERTIFICATION**

The certification under 37 C.F.R. §5.73(b) establishing the right of assignee to take action is attached hereto along with documentation evidencing same. Further, in my official position with Taiwan Semiconductor Manufacturing Company, Ltd., I am authorized to sign documents and otherwise act on its behalf in connection with the management and handling of patent applications and other intellectual property matters.

Date

May 24 2004

Chien-Wei (Chris) Chou  
Director - Intellectual Property Division

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No	Serial No	TSMC No.	Application Title	Filing Date	Assignment (Reel/Frame)
1	10/120,834	TS19997050	Process For High Voltage Oxide And Select Gate Poly For Split-Gate Flash Memory	4/11/2002	012791/0621
2	10/074,882	TS2000835	Methodology To Reduce The Early Failure Rate By Applying Dynamic Voltage Stressing In Testing With Screen Criteria Of Delta LSS	2/12/2002	012599/0147
3	09/333,961	TS20010325	Electrostatic Discharge-Free Container For Insulating Articles	8/22/2001	012138/0489
4	10/058,473	TS20011053	Enhanced Adhesion Strength Between Mold Resin And Polyimide	1/28/2002	014216/0356
5	10/040,233	TS20010102	Novel Design And Fabrication Method For Finger N-Type Doped Photodiodes With High Sensitivity For CIS Products	11/7/2001	Filed 3-29-04 Copy attached
6	10/225,303	TS20010389	HDP Gap-Filling Process For Structures With Extra Step At Side-Wall	8/22/2002	013228/0267
7	10/679,737	TS200113808	Method For Forming A Novel Top-Metal Fuse Structure	10/6/2003	012593/0150
8	10/437,092	TS200109968	Horizontal Surrounding Gate MOSFETS	5/13/2003	013308/0735
9	10/338,138	TS20011442	Integrated High Performance MOS Tunneling Led In ULSI Technology	1/8/2003	013647/0832
10	10/177,912	TS20011051	Structure And Method For Low-Stress Concentration Solder Bumps	6/20/2002	013041/0230
11	10/313,501	TS20011509	Multivariate RBR Tool Aging Detector	12/6/2002	Copy attached
12	09/932,660	TS1998350/85 2BCC	Tilt-Angle Ion Implant To Improve Junction Breakdown In Flash Memory Application	8/20/2001	010367/0646
13	09/805,406	TS20010133	Selective Formation Of Metal Gate For Dual Gate Oxide Application	7/16/2001	012011/0342
14	10/288,194	TS20020083	Self-Aligned Structure With Unique Erasing Gate In Split Gate Flash	11/8/2002	010483/0576
15	10/255,482	TS20020058	Method To Prevent Side Lobe On Seal Ring	9/26/2002	013341/0450
16	10/245,433	TS20011294	Metal Fuse For semiconductor devices	9/17/2002	

Date:

*May 24, 2004*

*[Signature]*